## Oak Ridge Non-Defense Project Operating Plan

**BACKGROUND** 

**Recovery Act Project:** Oak Ridge Non-Defense Recovery Act Project

**TAFS:** 89-09/10-0335

**Project Identification Code:** 2002230

**Recovery Act Bill Reference:** PL 111-5, Division A, Title IV- Energy and Water

Development, Non-Defense Environmental Cleanup

**Project Cost:** \$78,800,000

**Budget Authority:** 05949, FE.01.15.00.0

**Program Office:** Environmental Management

**Recovery Program Plan:** EM Non-Defense

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**LEADS** 

Implementation:N/ABreakthrough:N/ALaboratory:N/A

## I. SUMMARY & OBJECTIVES

## **Summary:**

This Recovery Act project supports the mission of the Department of Energy (DOE) Office of Environmental Management (EM) by demolishing surplus contaminated facilities and remediating contaminated soil at the Oak Ridge National Laboratory (ORNL) including:

- Complete demolition and disposition of surplus facilities at ORNL. Demolitions will include buildings within the 2000 Complex (~60K square feet), the General Maintenance Facilities Complex (~56K square feet), and the Southeast Lab Complex (~25K square feet).
- Complete legacy material removal and disposition from 4 buildings (~9K square feet) in the ORNL Central Campus and Building 2026 Complex (~27K square feet).

While this is the goal by the first quarter of FY 2012, by 2010, which is the first milestone for Recovery Funding, we are expecting:

Decrease Oak Ridge National Laboratory contaminated foot print by 40,000 square feet

# **Deinventory and Demolition Projects:**

FIMS ID	Description	Square Feet (ft <sup>2</sup> )	Category
2026	Radioactive Materials Analytical Laboratory	26,641	Deinventory
2000	Solid State Annex/Quality Assurance/Ins2000	23,148	Demolish
2001	Information Center Complex	25,925	Demolish
2019	Solar Energy/Laser Laboratory	878	Demolish
2024	Quality Assurance & Inspect	10,296	Demolish
2034	Manhole 95 Monitoring Station	64*	Demolish
2087	Storage I-E	187	Demolish
2088	Emergency Generator for Bldg 2000	162	Demolish
2092	Storage	116	Demolish
2009	Cafeteria Warehouse	4,231	Demolish
2011	Electric & AC Service Center	6,421	Demolish
2017	East Research Service Shop	234	Demolish
2018	Elect & Air Cond Service Ctr	8,760	Demolish
2061	Smoke Stack	314*	Demolish
2517	HR & Diversity Training/Programs	2880	Demolish
3008	Source & Special Material Vault	563	Demolish
3012	Rolling Mill	10,160	Demolish
3044	West Complex Field Shop	5,834	Demolish
3084	Neutron Spectrometer Station 2	392*	Demolish
3095	Reactor Area Equipment Building	6,952	Deinventory/Demolish
3103	Basin w/cover and Pumphouse (ORRR Cooling Tower No. 3)	5,720**	Demolish
3111	Sentry Post No 8b	48	Demolish
3112	Misc. Storage Building	182	Deinventory/Demolish
3115	CMSD Office and ESTD Laboratory (FMIS lists as Solid State Office)	2,782	Demolish
3132	Emergency Generator for 3127, 3129, 3027 with Diesel Tank	75 <sup>*</sup>	Demolish
3503	High Radiation Level Chem Engr Lab	12,798	Demolish
3503A	Building 3503 Storage Pad	2,000*	Deinventory/Demolish
3504	Geosciences Laboratory	7,557	Demolish
3543	MSR Development Lab	610	Demolish
3550T	Trailer, Van Type (Intercomparison SDL)	314	Deinventory/Demolish
3605	TSD Storage Building	385	Demolish
3629	GAAT Maintenance Tent	1,287	Demolish
	•		

<sup>\*</sup> Square footage not reported in FIMS, obtained from alternative source.

<sup>\*\*</sup> Facility not included in FIMS, square footage obtained from alternative source.

This Recovery Act work meets the following Department of Energy (DOE) and Environmental Management (EM) strategic themes and goals:

DOE Strategic Theme 4 – Environmental Responsibility – Protect the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.

DOE Strategic Goal 4.1 – Environmental Cleanup – Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites across the United States.

DOE Strategic Theme 5 – Management Excellence - Enabling the Department's mission through sound fiscal and program management.

DOE Strategic Goal 5.1 – Integrated Management – Institute an integrated business management approach throughout DOE with clear roles and responsibilities and accountability to include effective line management oversight by both Federal and contractor organizations.

EM Strategic Goals – Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup. Fulfilling commitments to reduce risk and complete cleanup across all sites for future generations.

## **Work Scope Changes:**

There are no changes to the scope in the previously approved POP.

## **Buy Back Work Scope:**

Based on the potential availability of funds from unused management reserve and contingency funds and from cost efficiencies in executing the planned projects, the following additional candidate projects have been identified should funding become available.

- Prepare Building 2026 for demolition.
- Demolish Building 2026.
- Characterize and remove material from Beta-3.
- Remove legacy material from Bldg 3047.
- Reconfigure and isolate 4500 Area buildings from 3039 stack.
- Remove legacy material/prepare for demolition/demolish excess ORNL facilities.

Performance measurement baselines, milestones, and metrics will be developed as projects are selected and definitized.

#### **Public Benefits:**

This Recovery Act Project at the Oak Ridge National Laboratory will demolish contaminated facilities and structures (141,000 square feet) and remove legacy waste from excess facilities (36,000 square feet). The acceleration of the above demolition and remediation activities will reduce the Environmental Management financial liabilities and lower overall risk to the worker, public and the surrounding environment and communities.

## **Recovery Act Project Impacts:**

This Recovery Act Project at the Oak Ridge National Laboratory will reduce the contaminated footprint by 141,000 square feet, releasing valuable real estate for modernization of the Central Campus

## II. COST & SCHEDULE

## **Budget:**

Table 1: Budget Implementation Monthly Obligations (actual obligations to contractors for Apr 2009 through Feb 2010 and projected obligations to contractors for Mar 2010 through Sept 2010) (\$M)

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with an obligations table.

Table 2: Budget Implementation Actual and Planned Monthly Expenditures (actual costs for Apr 2009 through Feb 2010 and projected costs for Mar 2010 through Sept 2011 and then, if applicable, projected annual expenditure in FY2012) (\$M)

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with a costs table.

The expenditure profile in Tables 1 and 2 and the performance measures provided in Table 6 are based on the best available information about the Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and the associated end-state performance measures. It is expected that as the detailed estimates and resource-loaded schedules (using Primavera 6.2) are developed, there will be changes to these estimates and performance measures.

This Recovery Act scope will be integrated into the Oak Ridge baseline, but tracked and reported separately and uniquely, using an approved change control process.

Table 3: Funds Returned and Offsetting Collections (\$M) is not applicable to this project.

## **Indirect Costs**:

This work will be performed by an existing facility and operating contractor utilizing an approved indirect rate structure, and by non-facility and operating contractors.

The facility and operating contractor estimated rates are: FY 2009 28.2%, FY 2010 28.2%, and FY 2011 27.8%.

The non-facility and operating contractors cost are assumed to be all direct costs.

Additionally, all Oak Ridge contractor indirect rates are subject to an annual audit review and require final approval by the contracting officer.

## Changes to Baseline

## **Table 4: Changes to Baseline (\$M)**

Not applicable

#### **Milestones:**

## **Milestones for Legacy Material Removal:**

Milestone Date	Legacy Material Removal OR-0042NewR2.1
	Milestones will be developed after definitization of IDIQ contract baseline.

## **Milestones for Facility Demolition:**

Milestone Date	Facility Demolition OR-0042NewR2.2
9/10/2009	2000 Complex - Award demolition Contract
2/11/2010	2000 Complex - Abatement Complete 2000 Complex East
12/30/2010	2000 Complex - Complete D&D 2000 Complex East
9/10/2010	2000 Complex - Abatement Complete 2000 Complex West
3/31/2011	2000 Complex -Complete D&D 2000 Complex West
3/31/2011	2000 Complex - Complete D&D of 2000 Complex

## **Milestones for Misc Facility Demolition:**

Milestone Date	Misc Facility Demolition OR-0042NewR2.3
	Milestones will be developed after definitization of IDIQ contract baseline.

**NEPA Compliance:** The scope of work is being undertaken pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; separate NEPA reviews are not required. The Oak Ridge Office's NEPA Compliance Officer will monitor implementation and, as necessary, determine whether future NEPA review is required.

## **Table 5: Delivery Schedule for Capital Asset Projects**

Note: This Recovery Act Project consists of three subprojects:

- ORNL Non-Defense Legacy Material Removal is a non-Capital Asset project.
- ORNL Non-Defense Facility Demolition is a Capital Asset Project. CD2/3 baseline was approved December 2009.
- ORNL Non-Defense Misc Facility Demolition is a non-Capital Asset project.

## **III. PERFORMANCE**

#### **Performance Measures:**

Performance measures provided in Table 6 are based on the best available information about Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and the associated end-state performance measures. It is expected that there will be changes to the estimates and performance measures.

This Recovery Act scope will be integrated into the Oak Ridge baseline, but tracked and reported separately and uniquely, using an approved change control process.

Table 6a: Overall ARRA Performance Measures and Targets

Recovery Act Project Identification	2002230
Code	
Linkage To S-1 Priorities	Economic prosperity and national security and legacy (see Table 8)
Linkage to Current Program Goal (if applicable)	This Recovery Act work meets the following Department of Energy (DOE) and Environmental Management (EM) strategic themes and goals:

	DOE Strategic Theme 4 – Environmental Responsibility – Protect the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.
	DOE Strategic Goal 4.1 – Environmental Cleanup – Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites across the United States.
	DOE Strategic Theme 5 – Management Excellence - Enabling the Department's mission through sound fiscal and program management.
	DOE Strategic Goal 5.1 – Integrated Management – Institute an integrated business management approach throughout DOE with clear roles and responsibilities and accountability to include effective line management oversight by both Federal and contractor organizations.
	EM Strategic Goals – Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup. Fulfilling commitments to reduce risk and complete cleanup across all sites for future generations
	By the end of FY 2011:
Two-Year Outcome-Oriented Performance Measure	• Remove and dispose of legacy materials from 9,000 square feet of excess facilities.
i ciromance weasure	Decrease Oak Ridge National Laboratory
	contaminated foot print by 141,000 square feet.
First Year Performance Target	By the end of FY 2009 initiate procurement actions and/or mobilize work force to:
Q3 - Project-Level Quarterly Performance Milestone(s)	2026 - Post synopsis at FBO/Recovery.gov 2026 - Post Request For Proposal on DOE website
Q4 - Project-Level Quarterly	2000 Complex - Submit Waste Handling Profile to
Performance Milestone(s)	Core Team for Review
	By the end of FY 2010:
Second Year Performance Target	Reduce contaminated footprint by 35,000 square feet
Q1 - Project-Level Quarterly	Bethel Valley Record of Decision - Modification
Performance Milestone(s)	Approved by Regulators

Q2 - Project-Level Quarterly Performance Milestone(s)  Q3 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>2000 Complex - Begin field mobilization for 2000 Complex East; Complete characterization</li> <li>2000 Complex - Submit Final Waste Handling Profile to Regulators</li> <li>2000 Complex - Regulators Approve Waste Handling Profile</li> <li>2026 - Complete Request For Proposal Evaluations (technical and cost/price)</li> <li>2026 - Award instrument after Signature 2026 - Conduct Data Quality Objectives and Document Results; Issue Notice To Proceed to Contractor; submit Sampling and Analysis Plan to Core Team for review; Submit Final Sampling and Analysis Plan</li> <li>2000 Complex - Begin field mobilization for 2000 Complex West</li> </ul>
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>General Maintenance Facilities/Southeast Lab         Complex - Submit Sampling and Analysis Plan to         Core Team for review; Submit Final Sampling and         Analysis Plan</li> <li>2026 - Complete Characterization; Data         Analysis/Validation; Develop and Approve Waste         Profile; Submit Waste Handling Plan to Core Team         for Review; Update Safety Basis – D&amp;D</li> <li>General Maintenance Facilities/Southeast Lab         Complex - Complete Characterization; Data         Analysis/Validation; Sampling Complete</li> <li>2026 - Submit Final Waste Handling Plan to         Regulators</li> <li>General Maintenance Facilities/Southeast Lab         Complex - Submit Waste Handling Plan to         Regulators for Approval</li> </ul>
Third Year Performance Target	<ul> <li>By the end of FY 2011:</li> <li>Complete removal and disposal of legacy materials from 9,000 square feet of excess facilities.</li> <li>Complete reduction of contaminated footprint by 106,000 square feet.</li> </ul>
Q1 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>Central Campus Legacy Waste Disposition - Issue Waste Handling Plan to Core Team; Regulator Review/Approval of Waste Handling Plan; Submit Waste Handling Plan to Regulators</li> <li>General Maintenance Facilities/Southeast Lab Complex - Submit Waste Handling Plan to Core</li> </ul>

Q2 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>Team for Review; Update Safety Basis Document - D&amp;D</li> <li>2026 - Regulators Approve Waste Handling Plan</li> <li>General Maintenance Facilities/Southeast Lab         Complex - Regulator Approval of Waste Handling             Plan.     </li> <li>Complete Decontamination &amp; Decommissioning of         2000 Complex East     </li> <li>Complete Decontamination &amp; Decommissioning of         2000 Complex West     </li> </ul>
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>General Maintenance Facilities/Southeast Lab Complex - Complete Demolition Northeast Quad</li> <li>2000 Complex - DOE/Regulators Final Review/Approval of Phased Construction Completion Report</li> </ul>
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>Central Campus Legacy Waste Disposition - Legacy Waste Disposition Complete.</li> <li>General Maintenance Facilities/Southeast Lab Complex - Complete Decontamination &amp; Decommissioning SE Contaminated Lab Complex</li> <li>General Maintenance Facilities/Southeast Lab Complex - Decontamination &amp; Decommissioning Complete</li> </ul>
Fourth Wood Porformed Toward	By the end of FY 2012:
Fourth Year Performance Target	• Complete removal and disposal of legacy materials from 27,000 square feet of excess facilities.
Q1 - Project-Level Quarterly Performance Milestone(s)	<ul> <li>2026 - Complete Legacy Waste Disposition</li> <li>General Maintenance Facilities/Southeast Lab Complex - DOE/Regulators Final Review/Approval of Phased Construction Completion Report</li> </ul>

Table 6b. ORNL Non-Defense Legacy Waste Removal Detailed ARRA-Specific Project Performance Measures and Targets

Ol	RNL N	on-Defe	ense Le	gacy W	aste Ro	emoval	OR-0	042Nev	vR2.1		
FY 2009 Q3 Target	FY 2009 Q4 Target	FY 2010 Q1 Target	FY 2010 Q2 Target	FY 2010 Q3 Target	FY 2010 Q4 Target	FY 2011 Q1 Target	FY 2011 Q2 Target	FY 2011 Q3 Target	FY 2011 Q4 Target	FY 2012 Yearly Target	Total ARRA Target
Me	trics will	be develo	oped after	definitiz	ation of l	DIQ con	tract base	eline			

Table 6c. ORNL Non-Defense Facility Demolition Detailed ARRA-Specific Project Performance Measures and Targets

ORNL Non-Defense Facility Demolition OR-0042NewR2.2												
	FY 2009 Q3 Target	FY 2009 Q4 Target	FY 2010 Q1 Target	FY 2010 Q2 Target	FY 2010 Q3 Target	FY 2010 Q4 Target	FY 2011 Q1 Target	FY 2011 Q2 Target	FY 2011 Q3 Target	FY 2011 Q4 Target	FY 2012 Yearly Target	Total ARRA Target
Buildings Demolished	0	0	0	0	6	0	2	0	0	0	0	8
D&D Debris and Remediated Soil Disposed (MLLW, LLW, Industrial) (m3)	0	0	7	1,182	4,361	2,832	113	0	0	0	0	8,495
Facility Square Footage Demolished	0	0	0	0	35,064	0	23,212	0	0	0	0	58,276
Industrial Facility Completions	0	0	0	0	3	0	1	0	0	0	0	4
Radioactive Facility Completions	0	0	0	0	3	0	1	0	0	0	0	4

Table 6d. ORNL Non-Defense Misc Facilities Demolition Detailed ARRA-Specific Project Performance Measures and Targets

ORNL Non-Defense Misc Facilities Demolition OR-0042NewR2.3												
	FY 2009 Q3 Target	FY 2009 Q4 Target	FY 2010 Q1 Target	FY 2010 Q2 Target	FY 2010 Q3 Target	FY 2010 Q4 Target	FY 2011 Q1 Target	FY 2011 Q2 Target	FY 2011 Q3 Target	FY 2011 Q4 Target	FY 2012 Yearly Target	Total ARRA Target
	Me	etrics will	be devel	oped afte	r definitiz	zation of	IDIQ con	tract base	eline			

## **National Strategic Benefits:**

Table 7: National Strategic Benefits is not applicable to this project.

## IV. MANAGEMENT

#### **Secretarial-level Items**

## **Table 8: Secretary's Priorities**

Table 8 depicts the linkages between short term (5 year) qualitative and quantitative benefit estimates and the Secretarial-level Priorities through September 2014

Secretary's Priorities	<b>Project Impacts</b>	<b>Project Impacts</b>
	(Qualitative)	(Quantitative)
Science and Discovery		
Clean, Secure Energy		
Economic Prosperity	Jobs	Create or preserve jobs
National Security and	Removal of legacy material	Remove and dispose of
Legacy	and demolition of	legacy materials in 36,000
	contaminated facilities at	square feet of excess
	ORNL.	facilities. Decrease Oak
		Ridge National Laboratory
		contaminated foot print by
		141,000 square feet.
Climate Change		

## **Collaboration and Coordination:**

The following external partners will play a vital role in the successful completion of the Recovery Act scope:

- Regulatory
  - o Environmental Protection Agency, Region IV
  - o Tennessee Department of Environmental Conservation
  - o Tennessee Department of Transportation
  - o Nuclear Regulatory Commission
  - o Defense Nuclear Facilities Safety Board
- License Disposal Sites
  - o Nevada Test Site
  - o Energy Solutions, Utah
  - o Other Available Commercial Facilities
- Other Stakeholders
  - o Oak Ridge Site Specific Advisory Board

## **Federal Infrastructure Investments:**

There are no infrastructure investment project activities associated with this Recovery Act Project.

However, ancillary benefits will be achieved through the elimination of facilities resulting in reduced electrical power consumption and corresponding reduction of greenhouse gas emissions. Reuse/Recycle of excess materials could result in reduced consumption in fossil fuels required to process raw materials.

These facilities contain hazardous or radiological material. Accelerating the removal and proper disposal reduces risk of releases of this material to the environment

#### **Line Management:**

Oak Ridge will use existing business and project management systems and practices to effectively monitor and report on the Recovery Act projects, including:

- Fully implement all Recovery Act transparency and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue applying project management principles to Recovery Act Project execution, including reviewing and validating Environmental Management project cost and schedule baselines consistent with the Department of Energy's Order 413.3A and identifying project risks and strategies for managing them.
- Continue monitoring of the contractors' Earned Value Management System reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Use an Integrated Project Team of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Conduct periodic project reviews to inform senior management of the status of the Recovery Act projects.

## **Needs from Staff Offices:**

- Timely business clearance approval or waiver from Headquarters for large procurement actions.
- Priority execution of security clearance requests.

#### 1) Human Capital

Oak Ridge is committed to ensuring the safety of workers and the public during the accomplishment of the additional work under the Recovery Act, and additional measures and personnel are required beyond those currently in place. Accordingly, the current Environmental Management contractors who will be performing work funded under Recovery Act have existing Safety Assurance Plans. The Oak Ridge also plans to utilize Indefinite Delivery Indefinite Quantity contracts to perform some of the Recovery Act funded work. Since these contracts are not in place at this time, safety assurance plans do not exist for these work items. However, as we develop contract requirements for the Indefinite Delivery Indefinite Quantity contracts, we will include the development of Safety Assurance Plans, as one of these requirements.

We have completed our staffing analysis to ensure we are able to perform adequate oversight of this work to ensure the safety of workers and the public. Oversight plans have been established and as additional work is mobilized, staffing requirements are reviewed. Additional requirements for Facility Representatives, Safety System Subject Matter Experts, project control engineers/specialists, estimators, and schedulers will be determined and provided as necessary through Technical Support Services Contract(s).

# Table 9: Information on Hiring Under the Recovery Act is not applicable to this project.

Note: Oak Ridge requirements for Recovery Act projects are included in the Oak Ridge Defense ORNL D&D Recovery Act Project Operating Plan.

#### 2) Procurement

Work to be completed through Environmental Management Consolidated Business Center - Indefinite Deliverable Indefinite Quantity contracts and facility and operating contractor.

**Table 10: Procurement Plans:** 

Activity	Type	New/Exist (N/E)	Changes (E), Needs (N)	Status	Expected Complete	Issues (Y/N)
Issue funding modification for the University of Tennessee Battelle contract	Contract	Existing	Modification	Funding modification executed Sept 09	N/A	N
Award EM CBC Facility D&D Indefinite Delivery Indefinite Quantity contract task order	Task Order	New Task	Indefinite Delivery Indefinite Quantity contract	Task Order awarded March 2010	N/A	N
Award EM CBC Hot Cells D&D Indefinite Delivery Indefinite Quantity contract task order	Task Order	New Task	Indefinite Delivery Indefinite Quantity contract	Task Order awarded April 2010	N/A	N

Other procurement actions that will be required include analytical and technical support.